Remarks

The various parts of the Office Action (and other matters, if any) are discussed below under appropriate headings.

Objection to the Specification

The specification has been amended as suggested by the Examiner, and further to improve the grammatical structure of the paragraph being amended.

Rejection under 35 U.S.C. 112

Claim 7 has been amended to correct the error noted by the Examiner.

Rejection under 35 U.S.C. 103(a)

The claims stand finally rejected as being unpatentable over newly applied Baranyi U.S. Patent No. 2,930,727 in view of Watson et al. British Patent Specification No. 553,561. It is respectfully submitted that this rejection is improper because (1) there is lacking any motivation to combine the references as proposed by the Examiner, and (2) the result of any such combination would still not yield the invention as claimed.

No Motivation

According to the Examiner, the skilled person would have been motivated to modify the methodology of Baranyi et al. to use the "keying" technique of Watson et al. for its "documented beneficial function and result (viz. delamination prevention), especially since the "clear intent" of Baranyi et al. is that the component layers of their final composite laminate product be permanently joined and adhered. The undersigned agrees with the Examiner that Baranyi et al. no doubt wants to produce a laminate wherein the layers stay joined together. This presumably would be true of any laminated flooring material. However, Baranyi et al. do not disclose or even suggest that delamination is a problem with their laminate or the conventional laminate described in column 2 at lines 25-37.

Indeed, delamination presumably was a problem with the materials and equipment available to produce "plastics having a paper base" when the Watson et al. specification was filed back in 1941. The product produced by Watson et al. had plies with a thickness of not less than 2.5 mils (complete specification, page 1, lines 81-83) and impregnation levels between 15% and 42% (complete specification, page 2, lines 2-4).

By 1958, much had changed in the production of resin impregnated laminates. At that time, a conventional laminate was composed of a laminated core, a print sheet and an overlay layer (Baranyi et al., column 2, lines 25-27). In contrast to the impregnation levels taught by Watson et al., Baranyi et al. point out that the overcoat layer usually contained from 250 to 300 parts by weight of melamine or like resin for every 100 parts of paper, the print sheet contained 70-100 parts of melamine or like resin for every 100 parts of paper, and the core contained 50-60 parts of phenol formaldehyde resin (column 2, lines 27-33). Nowhere does Baranyi et al. indicate that these composites are in any way plagued by delamination.

Rather, the focus of Baranyi et al. is to provide a laminate plate of a thickness below 1.0 mm and that is not subject to excessive brittleness, poor hardness, poor tensile and bending strength and internal tensions that cause warping (column 1, line 65 through column 2, line 15). Baranyi et al. suspected that internal tension arose from the lack of equilibrium in the structural arrangement of the finished laminate which is due in particular to the fact that such laminates usually contain core sheets, print sheets and/or decorative sheets, some or all of which sheets have been impregnated with different types of resins, and that during the heat-curing step, differences in molecular forces within and between each layer of different resin are created (column 2, lines 16-24). One can only surmise that the skilled person, given this explanation, would be unlikely to introduce another material, such as sand, small gravel or chips, mineral grit or emery, into the "stew" for fear that it would only compound the problem and negate the sought after goal of laminate plates of less than 1.0 mm thickness that do not have internal stress leading to warping. Watson et al. is of little help in this regard, because they are focused on a different problem, i.e., delamination, and in a composite structure quite different from that of Baranyi et al.

Thus, it is respectfully submitted that there is lacking the motivation needed to support the combination being advanced by the Examiner.[1]

Even If Proper, the Combination Does Not Yield the Invention as Claimed

The process for producing laminate coatings recited in claim 1[2] comprises the steps of:

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[1] It perhaps should be noted that applicants teach the use of particles for improved wear resistance to foot traffic, and not for the purpose of preventing delamination.

[2] A minor editorial change has been made in claim 1.

a) taking a wet patterned or decorative paper impregnated with a melamine resin;
b) spreading particulate fine aluminum oxide (corundum) onto the still wet paper before drying to pre-treat said paper;
c) **pre-drying or pre-condensing said paper**;
d) applying a covering layer of fibre material containing melamine resin **onto said pre-treated paper**; and
e) finally drying the whole, with the covering layer being transparent for viewing of the patterned or decorative paper.

The Examiner's comments in support of the rejection have been carefully considered, but it not seen how the Examiner believes the above-bolded limitations of claim 1 are met by the proposed modification of Baranyi et al. in view of Watson et al. It is respectfully submitted that even if the skilled person were somehow motivated to apply the 1941 teachings of Watson et al. to the 1958 process of Baranyi et al., there is still lacking any suggestion of the above-bolded limitations.

Conclusion

In view of the foregoing, the objection and rejections should be withdrawn and the application allowed.

Respectfully submitted,

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Amendments to the Specification

Amend the paragraph at lines 11-16 of page 3 as follows:

According to the present invention a laminate coating for floor tiles or similar uses can be ~~a~~ produced in one step~~;~~ . ~~the~~ The particles of aluminium oxide or corundum which produce the wear resistance of the laminate coating ~~being~~ are encapsulated ~~on~~ within the surface of the coating in such a way that they cannot damage the pressing plates or pressing bands of the machines or presses used for producing the laminate coatings.

Amendments to the Claims

1. (currently amended) A process for producing laminate coatings comprising the steps of:
   a) ~~Taking~~ taking a wet patterned or decorative paper impregnated with a melamine resin;
   b) spreading particulate fine aluminum oxide (corundum) onto the still wet paper before drying to pre-treat said paper;
   c) pre-drying or pre-condensing said paper;
   d) applying a covering layer of fibre material containing melamine resin onto said pre-treated paper; and
   e) finally drying the whole, with the covering layer being transparent for viewing of the patterned or decorative paper.

2. (previously amended) Process according to Claim 1, wherein said fibre material is formed as a fibre fleece containing melamine resin.

3. (original) Process according to Claim 1, wherein aluminum oxide or corundum having a particle size of about 125 µ-m is spread on the decorative paper.

4. (original) Process according to Claim 1, wherein the density of the coated decorative paper after drying amounts to about 140 to 150 g/m^2.

5. (original) Process according to claim 1, wherein the aluminum oxide is spread in a quantity of about 20 g/m^2.

6. (original) Process according to claim 1, wherein the aluminum oxide is spread in a quantity of about 8 g/m^2.

7. (currently amended) Process according to Claim 1, wherein said fibre material includes ~~cellular~~ cellulose fibres.

8. (previously added) Process according to Claim 1, wherein said fibre material includes glass fibres.